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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,920	03/08/2005	David Antoine Christian Marie Roovers	NL 020831	7519

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
LAO, LUN S	

ART UNIT	PAPER NUMBER
2615	

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/526,920	ROOVERS ET AL.	
	Examiner	Art Unit	
	Lun-See Lao	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. This action is response to the application 10/526,920 filed on 03-08-2005. Claims 1-12 are pending.

Content of Specification

2. Applicant is required to make correction so that the specification is compliance with MPEP Rules as set forth below:

(a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.

(b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.

(c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.

(d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).

(e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

(f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:

(1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of

the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."

(2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

(g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

(h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

(i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

(j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation.

There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).

(k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

(l) Sequence Listing, See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim1-12 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim1-10 of U.S. Patent No. 6,914,989. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-10 of U.S. Patent No. 6,914,989 are similar in scope to claim 1-12 of the US patent application 10/526,920 with obvious wording variations.

Claim Objections

5. Claim 10 is objected to because of the following informalities: ".... arranged for averaging a calibration factor is averaged" is unclear. Appropriate correction is required. The office is interpreting this phrase as, "arranged for averaging a calibration factor".

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 6, 8, 11, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Consider Claim 12, it is unclear if "a microphones" as written is meant to refer to a singular or a plurality of microphones.

Claim 6 recites the limitation "the averaging means" in line 2. There is

insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the output of the squaring and summation means" in-line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "the calculation of square root of the desired power divided by the actual power" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-3, 5-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US PAT. 5,029,215).

Consider claim 1, Miller teaches a device (Figure 4) for calibration of a microphone (microphones 201 and 202), comprising:

a loudspeaker (speaker 203) for converting a loudspeaker input signal into sound;

a microphone (microphones 201 and (202)) for converting received sound into a microphone output signal; and

calibration means (computer 412 and amplifiers 410 and 411) for calibrating an output power of the microphone relative to a desired power level (Miller discloses automatic adjustment of the microphone output, i.e. desired power level) (Column 4,

lines 36-38), said calibration means (computer 412) comprising estimating means for estimating an acoustic response of the microphone by correlating the microphone output signal (input from 414 to 412) and the loudspeaker input signal (signal from computer 412 to speaker 203) when the microphone receives the sound from the loudspeaker, whereby the output power of the microphone is estimated; but Miller does not explicitly disclose impulse response estimating means is used in the calibration means.

However, Miller does disclose the use of impulse response estimating means can be used in the microphone calibration means (Col. 4, lines 49-50).

Therefore, it would have been obvious that automatic calibrating apparatus as taught by Miller could have used impulse response estimating means so that the microphone could have been calibration accurately.

Consider claim 2, Miller further teaches frequency of excitation may be several frequencies (i.e. direct part) of the microphones characterization response pattern (see the discussion above claim 1).

Consider Claims 3 and 9, Miller further teaches a bandpass filter (Col. 5, lines 38-39). It is well known in the art that a bandpass filter can be produced by a lowpass filter in series with a highpass filter. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a lowpass and high pass filter for creating the bandpass as disclosed by Miller.

Consider claim 5, Miller further teaches a relating means (computer 412) for

relating a power level of the diffuse microphone response (signal from 414 to 412) with a desired power level (level of automatic adjustment disclosed Col. 4, lines 37-38).

Consider claim 6 Miller teaches an output of the relating means (see fig.4, 412)) or the averaging means is fed back to the microphone output signal (201,202) as calibration factor (see col. 4line 31-col. 5 line 33).

Consider claim 7, Miller further teaches whereby the desired power level has a predetermined value (sensitivity balance between microphones 201 and 202, column 2, lines 5-6) for absolute calibration of the microphone.

Consider claim 8 Miller teaches a reference microphone (201) for a relative calibration of one or more microphones (202) relative to the reference microphone (201) whereby the output of the squaring and summation means (413) of the reference microphone (201) form the input for the relating means (412) for the other microphones (201,202 and see col. 4 line 31-col. 5 line 33).

Consider claim 10, Miller teaches the outputs of microphones 201 and 202 (i.e. calibration factors) into adder 413 (i.e. average of the calibration factors).

Consider claim 12, Miller teaches a method of calibrating microphones (201 and 202) using the device of figure 4.

10. Claims 4-5, 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US PAT. 5,029,215) in view of Graummann (US PAT. 5,844,994).

Consider claim 4 Miller does not teaches a squaring and summation means for creating a representation of a current power level of a diffuse microphone response.

However, Graumann discloses an automatic microphone calibration device which calculates a standard deviation of the average energy for the last 0.5 seconds (i.e. diffuse microphone response) as a way of detecting noise in the signal (Col. 6, lines 17- 38) by summation and squatting means (Col 6, line 30).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include squaring and summing means to detect noise in the audio signal and make appropriate corrections as taught by Graumann (Col. 6, lines 17-19).

Consider claim 5, Grauman further teaches relating means coupled to an output of said squaring and summation means for relating the current power level of the diffuse microphone response (EAvG) with a desired power level (AP-9db) (Col. 7, lines 34-40).

Consider claim 7, Grauman teaches the desired power level has a predetermined value (AP-9dB) for absolute calibration of the microphone (Col. 7, lines 34-40).

Consider claim 11, Miller does not clearly teach relating means is a function of EAVG which will inherently be calculated before the relating means.

However, Grauman further teaches relating means is a function of EAVG which will inherently be calculated before the relating means (Col. 7, lines 34-40).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include squaring and summing means to detect noise in the

audio signal and make appropriate corrections as taught by Graumann (Col. 6, lines 17-19).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gifford et al. (US patent 5,841,876) discloses a bandpass filter made of a lowpass and highpass filter (Col. 5, lines 25-30) and Pertrushin (US PAT. 6,480,826) discloses an impulse estimates (col. 30 lines 22-62) to show other related CALIBRATINGA FIRST AND SECOND MICROPHONE.

12. Any response to this action should be mailed to:

Mail Stop ____(explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:
(571) 273-8300

Hand-delivered responses should be brought to:
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501 The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao,Lun-See LLS
Patent Examiner
US Patent and Trademark Office
Knox
571-272-7501
Date 10-02-2006

VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600